



Diabetes *In-control* **NOW!**

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Letter from the Director of the Diabetes Institute

Dear Readers,

Welcome back to Diabetes In-control NOW! the newsletter of the Walter Reed Health Care System Diabetes Institute. As you know, diabetes is a very serious disease that can cause problems like blindness, heart disease, kidney failure, and amputations. By taking good care of yourself through diet, exercise, and medications you can control your blood sugar and decrease your risk of complications from diabetes. As we enter the upcoming holidays it is even more important to keep your blood glucose levels and weight within a healthy range. In this issue Mrs. Asha Jain, RD has several suggestions for handling the challenges associated with the holiday foods and traditions. Also, in this issue Dr. Tobias Glister, DPM, discusses the recognition and treatment of diabetic foot disease, a potential and highly preventable complication of diabetes.

The feet are especially affected by diabetes. Diabetic foot conditions develop from a combination of causes including poor circulation and neuropathy. Neuropathy is a relatively common neurological disorder that results from damage to the nerves. Although neuropathy can be caused by a number of diseases or disorders, diabetes is one of the most common causes. The process by which the nerves are damaged is not completely understood, but it is known that high blood glucose levels affect the metabolism of nerve cells which results in damage to the nerves. In 1993 the Diabetes Complications and Control Trial confirmed that good glucose control decreases the risk for neuropathy by 60% in a large sample of participants with Type 1 diabetes. Several studies indicate that good glucose control is one of the best ways to prevent diabetic peripheral neuropathy in people with Type 2 diabetes. Other complications of diabetes such as an increased risk for developing infection, a slower response to fight infection, and a decrease in circulation of blood, affect the ability of the feet to recover from an injury or infection. The foot is the most common reason for hospitalization of people with diabetes. It is also the most preventable.

You can see how important it is for people with diabetes to take the necessary precautions to prevent all foot related injuries. We hope this issue will provide you with the tools you need to maintain good blood glucose control during the holidays and to take the steps necessary to keep the spring in your own step!

The Diabetes Institute staff and I wish you a happy, healthy, and prosperous holiday season. See you next year!

Sincerely,
Robert A. Vigersky, COL MC
Medical Director, Diabetes Institute

Your Diabetes Clinics

Washington DC

**Walter Reed
Army Medical Ctr.**
Endocrinology
202-782-6750

Internal Medicine
202-782-6885

Virginia

**DeWitt Army Community
Hospital**
703-805-9329

**Family Health Center of
Fairfax**
703-970-4228

Rader Family Practice Center
703-696-7920

**Family Health Center of
Woodbridge**
703-576-1364

Maryland

**Kimbrough Ambulatory Care
Center**
301-677-8333

Could you have diabetic neuropathy?

Susan Walker, RN, CDE

What is peripheral neuropathy?

Peripheral neuropathy is the general term that refers to disorders of peripheral nerves. The peripheral nervous system is made up of the nerves that branch out of the spinal cord to different parts of the body. The peripheral nervous system consists of motor (to help move) and sensory (to help feel) nerves. Either or both sets of nerves can be affected in neuropathy. Sensory nerve damage results in tingling, burning, painful, or other uncomfortable feelings that may start in the toes and/or feet and spread up the leg.

Motor nerve damage may result in weakness or paralysis of the muscles controlled by the affected nerves

Decreased blood flow due to neuropathy can also cause wounds, sores, and cuts to heal more slowly, increasing the risk of infection. When reduced sensitivity is combined with decreased blood flow, serious problems can result.

What causes diabetic neuropathy?

The exact mechanism by which diabetes causes nerve damage is unknown, but research shows that high blood glucose levels have a “double whammy” effect on the nerves. High blood glucose levels cause chemical changes that impair the ability to transmit signals and damages blood vessels that supply the nerves with oxygen and nutrients. Recent research shows that having a certain type of gene increases the risk of more severe diabetic neuropathy. In addition, low levels of the high density lipoprotein (HDL), the “good cholesterol” and smoking have been shown to increase risk.

How will I know if I have neuropathy?

Of the nearly 21 million Americans with diabetes approximately 25% will develop foot problems related to the disease. The risk of developing neuropathy is greater the older you are and the longer you have had diabetes. It is very important, therefore, to take the necessary precautions to prevent all foot related injuries. Simple daily foot care can prevent serious problems. Take the test below to see if you have dia-

betic neuropathy. If you answer yes to any of these statements remember to tell your health care provider at your next visit.

- My feet tingle
- I feel ‘pins and needles’ in my feet
- I have burning, stabbing, or shooting pains in my feet
- My feet are very sensitive to touch.
- My feet hurt at night.
- My feet and hands get very cold or very hot.
- My feet are numb.
- I don’t feel pain in my feet, even when I have blisters or injuries.
- I can’t feel my legs when I am walking.
- The muscles in my feet and legs are weak.
- I am unsteady when I stand or walk.
- I have trouble feeling heat or cold in my feet or hands.
- I have open sores (also called ulcers) on my feet and legs. These sores heal very slowly.
- It seems like the muscles and bones in my feet have changed shape.
- I have other symptoms:

Research suggests that 50 to 85 percent of amputations related to diabetes can be prevented. You have heard about the ABCs of Diabetes. The table below shows you the ABCDEs of good foot care.

The ABCDEs of Foot Care

TARGET		
A =	A1C	<7%
B =	Blood Pressure	<130/80
C =	Cholesterol (LDL)	<100 mg/dl
D =	Don’t smoke	Ever
E =	Exercise	20-30 minutes 5 days/week

What you can do to keep your feet for a lifetime!

Tobias Glister, DPM

Neuropathy

At least 20 percent of adults who have diabetes manifest at least one symptom of neuropathy. As many as half of those may be asymptomatic, which suggests that a podiatric examination could expose the first indication of undiagnosed diabetes.

Sensory neuropathy can be painful or it can lessen your ability to feel pain, heat, and cold. Loss of feeling often means you may not feel a foot injury. In fact, you might not notice a foot injury until the skin breaks down and becomes infected. Motor neuropathy may cause deformities of the feet and toes. Your toes may curl upward, placing an unusual amount of pressure on the balls of the feet. If pressure is not relieved it can lead to open sores or ulcers.

Skin Changes

Diabetes can cause changes in the skin on your feet. One problem is that the nerves that control sweating in your foot no longer function as well. As a result, your feet may become very dry and peel and crack more easily. When the skin is cracked, bacteria may enter more easily and cause infection. Another problem is that calluses occur more often and build up faster. Calluses, if not trimmed, get very thick, break down, and turn into ulcers (open sores).

Decreased Circulation

Diabetes often leads to peripheral vascular disease that impedes circulation. The most common cause of this is atherosclerosis. Without



adequate circulation the feet and legs do not get the oxygen and nutrients they need to fight infection and heal properly. Some of the symptoms include:

- Claudication—a dull cramping pain in the calf muscle that occurs after walking a certain distance. It is usually relieved by rest.
- Numbness or tingling in the foot or toes.
- Changes in color of the skin—it may become more pale, bluish, or reddish.
- Changes in skin temperature—the foot becomes cooler.
- Swelling and dryness of the foot.

Other risk factors for developing poor circulation include a lack of physical activity, smoking, high blood pressure and high cholesterol. Smoking is bad for your overall health and it is especially bad for your feet. Smoking makes arteries harden faster, further decreasing blood flow to the feet and healing of wounds

Foot Ulcers

Ulcers occur most often over the

ball of the foot or on the bottom of the big toe. Ulcers on the sides of the foot are usually due to poorly fitting shoes. If you have deformities in your feet like hammer toes or bunions you may be a candidate for custom shoes. **Even though every ulcer may not hurt, every ulcer should be seen by your health care provider right away.** Neglecting ulcers may cause infections which may result in loss of toes, part of a foot, or even a limb.

What your health care provider will do varies with your ulcer. Your health care provider should take X rays of your foot to make sure the bone is not infected. The health care provider will remove all the dead and infected tissue. You may need to go into the hospital for this. Also, the health care provider will culture the wound to find out what type of infection you have and which antibiotic will work best.

Keeping off your foot is very important. Walking on an ulcer may make it larger and force the infection deeper into your foot. Your health care provider may put a special cast on your foot to protect it. If your ulcer is not healing and your circulation is poor, your health care provider may refer you to a vascular surgeon.

After the foot ulcer heals, you should still treat your foot carefully. Scar tissue under the healed wound will break down easily. You may need to wear special shoes after the ulcer is healed to protect this area and to prevent the ulcer from coming back.

Amputation

Although diabetes increases the risk for amputation, **between 50 to 85% of amputations can be prevented** through simple, but effective foot care. Are you beginning to see why this is so? Many people with diabetes have peripheral vascular dis-

ease which reduces blood flow to the feet and nerve disease which reduces sensation. Poorly controlled blood sugars decreases the ability of the immune system to fight infection. These three things work together to increase the risk of ulcers and infections that, if not treated properly,

may lead to amputation.

Therefore, take good care of your feet and see your health care provider right away about foot problems. Always follow your health care provider's advice exactly when caring for ulcers or other foot problems.

Helpful Recommendations for Caring for Your Feet

DO

- Control your blood sugars.
- Wash your feet every day. Pat them dry carefully, especially between the toes. Seal in the moisture that remains with a thin coat of a lubricant such as plain petroleum jelly, unscented hand creams, or other such products. Do not put oils or creams between your toes. The extra moisture can lead to infection.
- Check your feet every day for sores, calluses, red spots, cuts, swelling, and blisters. If you cannot see the bottoms of your feet, use a mirror or ask someone for help.
- Use a pumice stone every day to help keep calluses under control. Pumice stones work best when used on wet skin so include it as part of your bath or shower
- Cut your toenails straight across and file the edges. Do not rip off hangnails.
- Wear socks if your feet are cold.
- Wear flat shoes that fit your feet. They should be comfortable when you buy them. Break in your new shoes slowly.
- Ask your health care provider for advice on proper shoes if you have lost feeling in your feet.
- Consider wearing comfortable walking shoes every day.
- Check inside your shoes before wearing them. Make sure there are no pebbles, nails, or other sharp objects in them and that the shoe itself is not rough and the lining is not torn.
- Choose socks carefully. They should not have seams or other bumpy areas.
- See your health care provider at the first sign of infection or inflammation.
- Call or see your health care provider if you have cuts or breaks in the skin or have an ingrown nail.

- Tell your health care provider if the foot changes color, shape, or just feels different.
- See a podiatrist to trim your toenails if you cannot do so safely.
- See your podiatrist once a year, more often if he or she recommends it
- Pull your socks on gently to prevent ripping a toenail.
- Choose padded athletic socks to protect your feet and make walking more comfortable.
- See your health care provider to get started on an exercise or walking program. Exercise improves circulation by stimulating blood flow..
- Always wear sturdy, well-fitting, comfortable shoes whenever you walk or participate in any kind of exercise.
- Ask your health care provider about special shoes.

DO NOT

- Cut corns or calluses yourself.
- Soak your feet. or put your feet into hot water. Test water before putting your feet in it just as you would before bathing a baby.
- Use hot water bottles, heating pads, or electric blankets. You can burn your feet without realizing it.
- Wear garters, knee or thigh high stockings, or anything that cuts off circulation to your feet.
- Use chemicals on corns, calluses, or warts. Over-the-counter products are often too strong for use by people with diabetes. They can burn your feet.
- Wear mended socks.
- Walk barefoot...EVER. You could burn or cut your feet and not notice it. Keep slippers by your bed to use when you get up at night.
- Smoke. If you do smoke think carefully about quitting. It will help every aspect of your health and will decrease your risk of developing all the complications of diabetes

Diabetes and the Holidays

Don't be a Statistic!

Asha Jain, RD, CDE

Although always a challenge, diabetes is particularly challenging to manage during the holiday season. Nearly 21 million Americans have diabetes. Approximately one third of adults between the ages of 20 and 75 are obese. Even more disturbing is the number of children who are overweight and, as a result, are developing type 2 diabetes.

Americans gain an average of 7 pounds in the 5-week period between Thanksgiving and New Year's Day. This is largely due to overindulgence in traditional holiday foods and lavish desserts that are usually high in calories and fat. Travel, holiday parties, family gatherings, and shopping may disrupt usual routines and make it especially challenging to maintain usual physical activity or fitness programs.

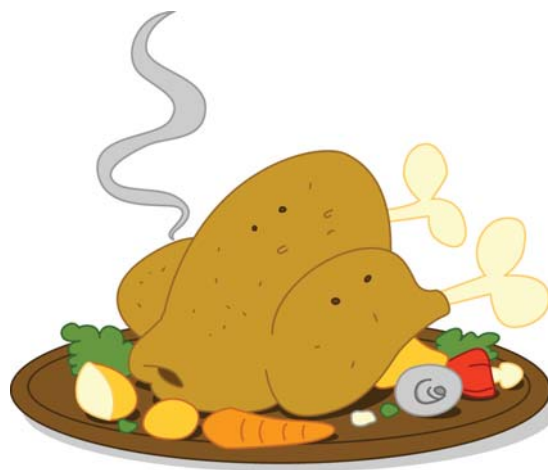
However, preventing weight gain during the holidays is much easier than making a New Year's resolution to lose it. It takes the average person 10 weeks to lose the weight gained during the holiday season. Many people, however, never lose those unwanted pounds. Decide now that you will not begin 2006 with unwanted pounds. Set realistic goals and identify steps you can take to avoid gaining weight this holiday season.

Almost everyone has to pay attention to what they eat and drink if they do not want to gain weight during the holiday season. However, it is even more important for people with diabetes to closely monitor what they eat and drink in order to maintain target blood glucose levels.

It is especially important during the holiday season to keep meal times consistent, monitor carbohydrate intake, monitor blood sugar levels closely, and maintain or increase physical activity. Pay particular attention to food labels, ingredient lists and portion sizes. With a few simple tips, staying healthy this holiday season may be easier than you think!

Tips for a successful holiday season

Knowing what you will face ahead of time allows you to plan for a successful outing. If you are going to a party and know your friend is making your favorite dessert, leave space in your meal plan to have a small portion. If you think there won't be any healthy



options, make one and bring it with you. Chances are at least one other person at the party will appreciate your efforts!

Do not shop or go to a party famished!

Hunger weakens your resolve to eat healthy foods and snacks and may lead to cravings for high-sugar, high-fat foods. Prevent cravings and overeating by eating a small snack, such as fresh fruit, vegetables, yogurt or a high-fiber cereal before meeting friends or families.

Stick with one plate.

Allow yourself only one plate at a party so you can see how much and what you are eating. If you are still hungry, restrict a second plate to just salad or fresh vegetables.

Always have a glass of water or another calorie-free beverage to sip during meals

If you are eating the right amount and types of food and are still hungry try drinking more water and other calorie free beverages. Drinking before and during meals makes you feel fuller and decreases the risk of overeating.

Avoid mindless snacking

It is very easy to pick up a cookie here and a piece of fudge there. Pay attention to everything you are eating to avoid eating unnecessary, non-nutritional calories and fat. Keep a journal to keep track of everything you put in your mouth.

Don't park at the buffet table

Standing by the buffet table can lead to constant grazing. Take your plate and move to the other side of the room. When you are finished with your plate, throw it out or take it to the kitchen to remind yourself that you have finished eating.

Pumpkin Cheesecake

Preparation Time: 20 minutes

Baking Time: 55-65 minutes

Chill Time: 4-6 hours

Serves: 20

Crust

1 cup graham cracker crumbs

1 1/2 teaspoon cinnamon

1/4 cup SLENDA® No Calorie Sweetener, Granular

1/3 cup light butter, melted

Filling

3-8 oz pkg. fat free cream cheese

2-8 oz pkg. reduced fat cream cheese

1 1/2 cups SLENDA® No Calorie Sweetener, Granular

3 tablespoons all-purpose flour

2 teaspoons cinnamon

1/2 teaspoons nutmeg

3/4 teaspoon ground ginger

1 pinch of ground clove

1-15 ounce can LIBBY'S® canned pumpkin

1/4 cup fat free half-and-half

1/2 cup egg substitute (e.g. Egg Beaters)

1 tablespoon vanilla

Topping

2 cups reduced fat sour cream

1/2 cup SLENDA® No Calorie Sweetener, Granular

1 teaspoon vanilla

2 drops maple flavor

Crust

1. Preheat oven to 350° F. Spray a 9-inch springform pan with baking spray. Set aside.

2. Mix crust ingredients together and firmly press onto bottom

of prepared springform pan. Bake 12-15 minutes or until lightly browned and firm. Cool.

3. Blend together cream cheese, SLENDA®, flour and spices on medium speed with an electric mixer until cream cheese is smooth and lump free. Scrape sides of bowl. Add pumpkin. Mix on medium speed until well blended. Scrape sides of bowl and mix until mixture is smooth and lump-free.

4. Turn mixer on low and slowly add half-and-half, Egg Beaters and vanilla. Blend until well mixed.

5. Pour over prepared crust. Bake in preheated 350° F oven 50-60 minutes or until center is slightly firm. Remove from oven and cool.

6. Prepare topping. Blend all ingredients together in a small bowl until well mixed. Pour on top of cheesecake and spread evenly. Return to oven and bake for 15 minutes. Remove from oven and cool 20-25 minutes on a wire rack. Chill 4-6 hours or overnight in the refrigerator. This, like all cheesecakes, is best if prepared a day in advance.

Nutrients Per Serving

Serving Size	1 slice
Calories	180
Calories from Fat	90
Total Fat	10g
Saturated Fat6g
Cholesterol	30mg
Sodium	320mg
Total Carbohydrate	14g
Dietary Fiber	1g
Sugars	3g
Protein	10g

Exchanges per Serving: 1 starch, 1 medium fat meat, 1 fat

Don't drink alcohol on an empty stomach!

Alcoholic beverages are high in calories and fat and can alter your blood sugar for hours after you have had a drink. Eating when you drink reduces your risk of low blood sugar. Check your blood sugar more often after a drink.

Pay close attention to what you are drinking. Beware of mixers such as sodas and juices or holiday drinks such as eggnog that are high in calories, fat, and/or sugar. Restrict your alcohol intake to two drinks if you are male and one drink if you are female.

REMEMBER! One drink means 1½ ounces of whiskey, 4 ounces of wine, or 12 ounces of beer.

Eat half-portions if there are lots of food you like

With many foods available, eat only half portions to allow

room in your meal pattern to try a variety of options.

Beware of hidden traps!

Many traditional holiday recipes are made with maple syrup, marshmallows, butter, cream, or cream soups. These "hidden" calories can sabotage your best efforts so know what you are eating and how it was prepared!

Enjoy yourself!

Plan activities that you enjoy that are not centered around food. Allow extra time when you are shopping to walk around malls to maintain your exercise program.

Try these modifications to lower fat and/or calories in your favorite holiday foods

Healthy eating involves making recipes that are lower in calories, fat and sugar. You may be surprised how minor changes can alter the amount of fat and calories in a dish.

without compromising taste. The sugar in baked products can often be reduced by $\frac{1}{2}$ to $\frac{1}{3}$ of the original recipe without major changes in taste, texture or appearance. Use sugar substitutes such as “Splenda” or “DiabetiSweet” in place of sugar in baked goods (use sparingly if you know these substitutes cause diarrhea). Try applesauce or pureed fruit in place of oil or butter. Replace butter or margarine with canola oil. Use fat-free sour cream or plain yogurt in place of sour cream. Frost cakes with fat-free Cool Whip instead of regular frosting.

Keep these tips in mind when you eat out

More than 50% of American's meals are now eaten in restaurants. Many restaurants now offer healthy options on their menus so you can eat out and stick to your meal plan. Ask your server to tell you how something is prepared before you order. If meals are oversized, cut back on the portion size or share with a friend or significant other. Keep these tips in mind to stick to your meal plan and still enjoy yourself:

- Order an appetizer as your main meal.
- Ask for a to-go box before beginning your meal and save half of your meal to take home for another time.
- Banish the “eat everything on your plate” mentality.
- Eat a small snack or drink a diet beverage before going out to eat.
- Order a small salad with low-fat dressing for an appetizer.
- Do not eat the crackers or breadsticks that may come with it.
- Add extra non-starchy vegetables instead of high-calorie foods if you are hungry.
- Limit the number and portion sizes of starchy vegetables and bread if you have dessert. Consider a fruit based dessert if available.
- Split the dessert or save half for another time.
- Know the number of carbs you can have each day.
- Avoid all-you-can-eat buffets
- Ask for sauces, gravies and dressings on the side.
- Ask the waiter/waitress to substitute healthy menu items for ones usually high in calories and fat.

Don't forget to exercise

Physical exercise is not only an excellent tool for weight and blood sugar control it is also an effective stress management tool. Make it a priority. Schedule it into your day and don't let anything get in the way! Try these tips to maintain an exercise program:

- Walk briskly while shopping, don't just stroll.

- Walk around the shopping mall two extra times with all of your bags.
- Shopping online? Use the time you saved to go for a walk around the neighborhood.
- Add 20 steps every day for every extra calorie you consume.
- Take the stairs instead of the elevator
- Get off the bus two stops early and walk the rest of the way.
- Park at the far end of the parking lot.

In conclusion, everyone is at risk to gain unwanted pounds during the holiday season. Putting these reminders and tips to work may not only help you, but help your friends and families have a healthier (and happier) holiday season.

Diabetes Classes

DeWitt Health Care Network

703.805.9329

Wednesday Evening

2nd & 4th Wednesdays every other month

Thursday Morning

Fairfax Family Health Center

703.576.1329

Thursday Morning

1st and 3rd Thursdays

Pre-diabetes Class

1st Thursday every other month

Woodbridge Family Health Center

703.576.1372

Monday Evening

1st and 3rd Monday of each month

Tuesday Morning

1st and 3rd Tuesday of each month

Pre-diabetes Class

4th Monday of each month

Walter Reed Army Medical Center

202.782.3308

Wednesday

2nd and 3rd Wednesdays of each month

Pre-diabetes Class

1st Wednesday of each month

Diabetes Studies

Diabetic Autonomic Neuropathy

202.782.3308

Inhaled Insulin

202.782.5226



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Our Mission ▶ **Your Health**

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